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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,410	02/04/2002	Christopher W. Hill	3380.1US (97-842.1)	8302
24247	7590	06/16/2006		
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			EXAMINER LEE, HSIEN MING	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No.	Applicant(s)	
	10/067,410	HILL ET AL.	
	Examiner	Art Unit	
	Hsien-ming Lee	2823	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 25 May 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b): **ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION.** See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because

(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

(b) ☐ They raise the issue of new matter (see NOTE below);

(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: \_\_\_\_\_.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_

13. ☐ Other: \_\_\_\_\_

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Primary Examiner  
Art Unit: 2823

*[Signature]*  
6/13/06

Continuation of 11. does NOT place the application in condition for allowance because: the arguments are NOT persuasive for the reasons as follows.

Applicant's argument is on the ground that Chen's reference does not teach or imply that the steps of selectively depositing metal silicide (i.e. titanium silicide) and depositing an interconnect material (i.e. titanium nitride) are performed in the same chamber, i.e. in-situ.

Applicant asserted that "the titanium silicide deposition process in Chen could be effected in a different chamber from the titanium nitride deposition process disclosed in Chen."

In response to the argument that the foregoing steps "could be effected in a different chamber", it is submitted that applicant's argument is based on a possibility that cannot find either a factual evidence or any suggestion in Chen's disclosure.

On the contrary, Chen et al. teach using chemical vapor deposition process for selectively depositing the titanium silicide 36 and then also using the chemical vapor deposition process for depositing titanium nitride 38 (col. 2, lines 41-42; col. 3, lines 2-4, 20-22, 62-63 and col. 4, lines 4-6, 28-29 and 35-37). Therefore, one of the ordinary skill in the art would have been motivated to selectively deposit the titanium silicide followed by depositing the titanium nitride thereon in the same chamber, since Chen uses the same process to deposit the foregoing two layers. The motivation/suggestion for performing the deposition processes in the same chamber is to simplify the processing and prevent the deposited layers from undesirable external contamination.

In response to applicant's arguments against the references individually (i.e. the rejections under Chen et al. in view of Chang et al., Chen et al. in view of Kolar et al, Chen in view of Kim et al. and Chen et al. in view of Shinriki et al.), one cannot show nonobviousness by attacking references individually where the rejections are based on combination of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

For the reasons above, the final rejection is deemed proper.

HSIEN-MING LEE  
PRIMARY EXAMINER



6/13/06